

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Original) A metal particle-dispersed composite oxide comprising:
a matrix material containing a composite oxide comprising a non-reducible metal oxide and an easily reducible metal oxide, the composite oxide containing 0.01 to 0.25 mol % of at least one additive metal selected from Al, Sc, Cr, B, Fe, Ga, In, Lu, Nb and Si;
surface metal particles precipitated on an outer surface of the matrix material containing the composite oxide; and
inner metal particles precipitated on an inner surface of the matrix material containing the composite oxide.
2. (Original) The metal particle-dispersed composite oxide according to claim 1, wherein a volume fraction of the inner metal particles is 0.01% to 1%.
3. (Original) The metal particle-dispersed composite oxide according to claim 1, wherein an average particle diameter of the surface metal particles is 10 nm or more.
4. (Original) A metal particle-dispersed composite oxide-sintered body comprising:
a metal particle-dispersed composite oxide existing in a region of the sintered body extended from the surface thereof to a depth of 10 μm , the metal particle-dispersed composite oxide including a matrix material containing a composite oxide comprising a non-reducible metal oxide and an easily reducible metal oxide, the composite oxide containing 0.01 to 0.25 mol % of at least one additive metal selected from Al, Sc, Cr, B, Fe, Ga, In, Lu, Nb and Si;

surface metal particles precipitated on an outer surface of the matrix material containing the composite oxide; and

inner metal particles precipitated on an inner surface of the matrix material containing the composite oxide.

5. (Original) The metal particle-dispersed composite oxide-sintered body according to claim 4, wherein a volume fraction of the inner metal particles in the metal particle-dispersed composite oxide is 0.01% to 1%.

6. (Original) The metal particle-dispersed composite oxide-sintered body according to claim 4, wherein an average particle diameter of the surface metal particles in the metal particle-dispersed composite oxide is 10 nm or more.

7-12. (Canceled)

13. (Original) A hydrocarbon fuel reformer comprising:

a fuel tank accommodating a hydrocarbon fuel;

a reforming agent tank accommodating a reformer for reforming the hydrocarbon fuel;

a preliminary heater vaporizing the hydrocarbon fuel and the reforming agent;

a mixer mixing the vaporized hydrocarbon fuel and the vaporized reforming agent;

a reformer having a catalyst layer containing a reforming catalyst occurring a reaction in a mixed gas obtained from the mixer to reform the mixed gas into a fuel mainly comprising hydrogen gas, the reforming catalyst being formed of metal particles-dispersed composite oxide of claim 1; and

a heater heating the reformer.

14. (Original) The hydrocarbon fuel reformer according to claim 13, wherein a volume fraction of the inner metal particles in the metal particle-dispersed composite oxide is 0.01% to 1%.

15. (Original) The hydrocarbon fuel reformer according to claim 13, wherein an average particle diameter of the surface metal particles in the metal particle-dispersed composite oxide is 10 nm or more.